

Amendments to the Claims

Claims 1-62 (Cancelled)

63. (Currently amended) A method of providing programmable copy protection of a video signal material demodulated from a transmitted signal via a digital delivery network[[s]], wherein one or more copy protection signal prevents copying and/or subsequent viewing of a recording of the video signal material while allowing viewing of the video signal which includes the one or more copy protection signal, comprising:

generating a copy protection command having a mode control command and programmable configuration bit patterns indicative of respective one or more copy protection signals;

receiving transmitting the transmitted signal material and the mode control command in ~~to~~ at least one device coupled to the network[[s]]; and

providing the one or more copy protection signal to the video signal material to produce a copy protected video signal in the at least one device in response to one or more ~~corresponding~~ programmable configuration bit pattern selected by the mode control command, to prevent said copying ~~and/~~ or subsequent viewing of the recording of the copy protected video signal material, wherein the copy protected video signal is viewable.

64. (Currently amended) The method of claim 63 including:

~~transmitting the one or more copy protection signal to the at least one device; and~~

applying the transmitted copy protection signal to the video signal material in response to the one or more programmable configuration bit pattern selected by the mode control command.

65. (Currently amended) The method of claim 63 including:

storing the one or more copy protection signal in the at least one device; and

recovering the one or more copy protection signal from storage and applying the recovered one or more copy protection signal to the video signal material in response to the one or more programmable ~~corresponding~~ configuration bit pattern selected by the mode control command.

66. (Currently amended) The method of claim 63 wherein:
said copy protection command includes the programmable configuration bit patterns indicative of a plurality of copy protection signals; and
wherein two or more copy protection signals are applied to the video signal material in response to respective ~~corresponding~~ programmable configuration bit patterns selected by the mode control command.

67. (Currently amended) The method of claim 63, including:
storing said one or more copy protection signal in the at least one ~~respective~~ device[[s]];
recovering the one or more copy protection signal[[s]] from storage in response to ~~corresponding~~ one or more programmable configuration bit pattern selected by the mode control command; and

applying the one or more copy protection signal to the video signal material to modify the video signal material such that the copy protected video signal ~~a copy thereof is un-viewable~~, is viewable but uncopiable ~~or to cause the remote devices to stop outputting the signal material~~.

68. (Currently amended) The method of claim 63 wherein the mode control command and the programmable configuration bit pattern each comprise one or more bit.

69. (Currently amended) The method of claim 63, wherein the copy protection command includes a bit pattern for on/off/mode control and ~~or~~ a multiple bit pattern which defines the programmable configuration bit patterns wherein the configuration bit patterns identify respective signals of the one or more copy protection signal.

70. (Currently amended) A system for controlling programmable copy protection of ~~proprietary~~ a video signal material demodulated or derived from a transmitted signal via a digital delivery network[[s]], wherein a service provider enables providing one or more copy protection signal to the video signal which prevents unauthorized copying ~~and/~~ or subsequent viewing of a recording of the video signal material ~~by consumers even when the signal material is watchable~~, the system comprising:

a copy protection command having a mode control command of one or more bit included ~~transmitted~~ with the transmitted signal ~~material~~, and a programmable configuration bit pattern indicative of the one or more copy protection signal; and

a device ~~located with each consumer~~ for applying the one or more copy protection signal to the video signal ~~material~~ to produce a copy protected video signal in response to a corresponding programmable configuration bit pattern selected by the transmitted mode control command, to prevent copying ~~and/~~ or subsequent viewing of the recording of the copy protected video signal, wherein the copy protected video signal is successfully watchable ~~material~~.

71. (Previously presented) The system of claim 70 wherein the one or more copy protection signal is transmitted to the device.

72. (Previously presented) The system of claim 70 wherein the one or more copy protection signal is stored in the device.

73. (Currently amended) The system of claim 70 wherein:
the programmable configuration bit pattern determines one or more programmable operating configuration corresponding to the one or more copy protection signal;
the ~~transmitter also transmits~~ transmitted signal is provided by a service provider, and
wherein the transmitted signal provides the programmable configuration bit pattern; and
the device selectively applies the one or more programmable operating configuration to the video signal ~~material~~ in response to the mode control command.

74. (Currently amended) A method of providing programmable copy protection of a video signal ~~material~~ derived from a transmitted signal to devices via a digital delivery network[[s]], wherein one or more programmable copy protection signal provided to the video signal produces a copy protected video signal which prevents copying ~~and/~~ or subsequent viewing of a recording of the copy protected video signal ~~material~~ while allowing watching of the copy protected video signal, comprising:

receiving the transmitted signal ~~material~~ and a copy protection command at one or more of the device, which copy protection command is indicative of the one or more programmable copy protection signal to be applied to the video signal ~~material~~;

wherein the copy protection command includes a mode control command and one or more ~~or a~~ programmable configuration bit pattern indicative of the one or more copy protection signal; and

applying the one or more copy protection signal to the video signal ~~material~~ to produce the copy protected video signal in response to the programmable configuration bit pattern selected by the mode control command in the one or more device, to prevent unauthorized copying ~~and/~~ or subsequent viewing of the copy protected video signal ~~recorded signal material~~, wherein the copy protected video signal is viewable.

75. (Previously presented) The method of claim 74 wherein the one or more copy protection signal is received by the one or more device.

76. (Previously presented) The method of claim 74 wherein the one or more copy protection signal is stored in the one or more device.

77. (Currently amended) The method of claim 74 wherein:
the one or more copy protection signal comprises a plurality of different copy protection configurations;

the programmable configuration bit pattern comprises a plurality of bit patterns corresponding to respective copy protection configurations to be applied to the video signal ~~material~~; and

the selected copy protection configuration, or configurations, is applied to the video signal ~~material~~ in response to the programmable configuration bit pattern as enabled by the mode control command.

78. (Currently amended) The method of claim 63 wherein the one or more copy protection signal comprises a plurality of copy protection signals, and wherein each signal of the

plurality of copy protection signals is identified by a corresponding programmable configuration bit pattern which is selectable by the mode control command.

79. (Currently amended) The method of claim 63 ~~[[78]]~~ wherein the one or more copy protection signal include one or more of the following; vertical blanking interval (VBI) pulses On/Off, end of field back porch pulses On/Off, color stripe process On/Off, automatic gain control (AGC) pulse normal (amplitude cycling) or static mode select, H sync amplitude reduction On/Off, ~~and~~ V sync amplitude reduction On/Off.

80. (Currently amended) A method of providing programmable copy protection of a video signal, wherein a plurality of copy protection signals are available for application to the video signal, comprising:

providing bit patterns indicative of respective programmable copy protection configurations corresponding to the plurality of copy protection signals; ~~and~~

applying one or more of the programmable copy protection configuration to the video signal to produce a copy protected video signal in response to a selection of one or more corresponding bit pattern; and

wherein the copy protected video signal is watchable while a recording of the copy protected video signal is not watchable.

81. (Currently amended) The method of claim 80 wherein the applied programmable copy protection configurations include one or more of the following; vertical blanking interval signals On/Off, end of field back porch pulses On/Off, color stripe process On/Off, automatic gain control (AGC) pulse normal (amplitude cycling)/static mode select, H sync amplitude reduction On/Off, ~~and or~~ V sync amplitude reduction On/Off.

82. (Currently amended) An apparatus for providing programmable copy protection to ~~of~~ a video signal wherein a plurality of copy protection signals are available for application to the video signal, comprising:

circuitry for providing bit patterns indicative of respective programmable copy protection configurations corresponding to the plurality of copy protection signals; ~~and~~

a circuit for applying one or more of the programmable copy protection configuration to the video signal to produce a copy protected video signal in response to a selection of one or more corresponding bit pattern; and

wherein the copy protected video signal is viewable while a recording of the copy protected video signal is not successfully viewable.

83. (Currently amended) A method of programming one or more copy protection waveforms for use in a video signal derived via ~~provided to~~ a digital delivery network that includes a transmission link, wherein the transmission link includes one or more of the following; a microwave system, satellite system, optical system, ~~and or~~ phone system, the method comprising:

providing one or more control bits from the transmission link to at least one remote device, wherein the remote device includes an encoder circuit that provides a programmable copy protection signal ~~and or programmable copy protection information~~ for the video signal in reception or response to the one or more control bits; and

applying the programmable copy protection signal to the video signal to produce a copy protected video signal, wherein the copy protected video signal is viewable but not recordable.

84. (Currently amended) An apparatus for programming one or more copy protection waveforms into a video signal of a remote device, wherein the video signal is derived from a digital signal provided by ~~to~~ a digital delivery network that includes a transmission link, wherein the transmission link includes one or more of the following; a microwave system, satellite system, optical system, ~~and or~~ phone system, the apparatus comprising:

a circuit for providing one or more control bits from the transmission link ~~in to~~ at least one remote device, wherein the remote device includes an encoder circuit that provides a programmable copy protection signal ~~and or programmable copy protection information~~ to the video signal in response to the one or more control bits; and

a circuit for applying the programmable copy protection signal to the video signal to provide a copy protected video signal, wherein the copy protected video signal is viewable but is not recordable.

85. (Currently amended) The apparatus of claim 84 wherein the digital delivery network includes video service providers such as a telephone signal provider, an RF broadcast signal provider, ~~and~~ or a satellite broadcast provider, for sending compressed video signals over the digital delivery network.

86. (Currently amended) The apparatus of claim 84 further including an electronic programming guide ~~and~~ or flash memory for supplying one or more programmable copy protection signal.

87. (Currently amended) The apparatus of claim 84 wherein the programmable copy protection signal ~~and or information~~ includes providing one or more of the following signals; vertical blanking interval (VBI) pulses on/off, end of field back porch pulses on/off, horizontal sync reduction on/off, vertical sync reduction on/off, automatic gain control (AGC) pulse modification on/off, AGC pulse amplitude cycling mode, ~~and or~~ AGC pulse static mode.

88. (Currently amended) An apparatus for processing a satellite, microwave, fiberoptic, or cable video signal, comprising:

a digital signal decompression circuit;

a ~~memory~~ circuit including having an electronic programming guide for providing a display on a television set or monitor ~~and or software applications~~;

an NTSC/PAL encoder circuit for providing an output for a video signal output ~~and or~~ an RF modulator circuit for providing an output for an RF signal output;

copy protection control registers ~~and~~ or one or more programmable copy protection signal generator for generating back porch AGC pulses, and receiving one or more programmable including copy protection configuration information bits; and

wherein the video signal ~~and~~ or RF signal is provided with a copy protection signal to produce a copy protected signal including back porch AGC pulses, wherein the copy protected signal is viewable on a television monitor but is not recordable activated or deactivated.

89. (Previously presented) The apparatus of claim 88 including a provision for flash memory and or a provision for conditional access.

90. (Currently amended) The apparatus of claim 88 wherein:
the video signal is provided by one or more of the following; a video service provider, a telephone company, a cable operator, ~~and or~~ a satellite company; and
wherein the video signal is delivered via one or more of the following; a microwave signal line, a phone line, a cable coax line, an optical fiber line, ~~and or~~ a satellite signal.

91. (Currently amended) The apparatus of claim 88 further comprising:
a device including an integrated circuit; and
wherein the device is coupled to one or more of; a microwave signal, a phone line, a cable coax line, an optical fiber line, one or more wires, ~~and or~~ a satellite signal, ~~and or~~ ~~including an RF output~~.

92. (Currently amended) The apparatus of claim 88 including circuitry for programming or reconfiguring the copy protection signal, and ~~a wherein the~~ memory circuit for storing ~~stores~~ into memory the one or more programmable copy protection configuration bits.

93. (Withdrawn) A method of delivering data to one or more devices that process signals, said devices being located in one or more sites, wherein each site communicates with a central system which includes a rights holder or service provider, comprising:

providing a portable media that includes data to the one or more sites or to the one or more devices;

receiving information from the one or more sites that includes identification data provided by said central system, wherein the information is received via a communication link that includes a phone line, a satellite link, an optical signal link, and or a wireless microwave link; and

wherein said central system sends a compressed data signal to the one or more sites after receiving the information from the one or more sites.

94. (Withdrawn) The method of claim 93 wherein the devices include a programmable copy protection process.

95. (Withdrawn) An apparatus for delivering data to one or more devices that process signals, said devices being located in one or more sites, wherein each site communicates with a central system which includes a rights holder or service provider, comprising:

a portable media memory store that provides data to the one or more sites or to the one or more said devices;

wherein the one or more remote sites provide information that includes identification data provided by said central system, wherein the information is received via a communication link that includes a phone line, a satellite link, an optical signal link, and or a wireless microwave link; and

wherein said central system sends a compressed data signal to the one or more sites after receiving the information from the one or more sites.

96. (Withdrawn) The apparatus of claim 95 wherein the devices include circuitry for providing a programmable copy protection process.

97. (Currently amended) An apparatus comprising a receiver of a digital signal[[s]] that includes the capability of programming at least part of a video copy protection signal and or of sending data signals to a service provider, comprising:

circuitry for providing one or more mode bits and one or more configuration bits indicative of one or more programmable copy protection signal; ~~and~~

said circuitry enabling wherein the one or more mode bits to enable[[s]] programming of the one or more programmable copy protection signal[[s]] onto a digital signal derived from the received digital signal[[s]]; and

wherein the one or more programmable copy protection signal is added or inserted onto the derived digital signal to provide a copy protected digital signal;

wherein the copy protected digital signal is converted to a copy protected analog video signal which includes at least one back porch pulse; and

wherein the copy protected analog video signal is successfully watchable but is not recordable.

98. (Withdrawn) The apparatus of claim 97 wherein:
the received digital signal is a video signal or an image signal;
wherein the receiver includes one or more of the following conditions:
the receiver includes one or more application program interface (API);
the receiver provides usage data or billing information to the service provider;
the receiver is coupled to a phone line, RF signal, microwave, a satellite transmission,
and or optical link;
the receiver is a bidirectional device, capable of receiving data and or sending data;
the receiver provides control of a program signal that includes the transaction of
recording not permitted, and or recording permitted at a higher transaction cost.

99. (Currently amended) The apparatus of claim 97 wherein the receiver includes one or more of the following; a demodulator, a digital decompressor, an MPEG decoder, an audio processor, a demultiplexer, one or more software applications, an electronic programming guide, a flash memory configuration, a conditional access system, a computational processor or CPU, ~~and or~~ an RF modulator.

100. (Currently amended) The apparatus of claim ~~99~~ 97 further comprising:
one or more of the following; audio output, AC-3 output, composite video output, component video output, ~~and or~~ RF output; and ~~or~~
a display responsive to the electronic programming guide or to information from the electronic programming guide.

101. (Currently amended) The apparatus of claim 97 wherein the service provider includes one or more of the following; a telephone company, a cable operator, a satellite broadcast company, ~~and or~~ a rights owner.

102. (Currently amended) The apparatus of claim 97 wherein the one or more mode bits selects one or more of the following conditions; pay to record allowed/prohibited, VBI pulses on/off, ~~end of field back porch pulses on/off~~, color stripe process on/off, AGC pulse with static

amplitude ~~and~~ or amplitude cycling, horizontal sync reduction on selected video lines, and ~~or~~ vertical sync amplitude reduction on selected lines, ~~and or including a reserved bit.~~

103. (Previously presented) The apparatus of claim 97 wherein the one or more configuration bits are stored in the receiver.

104. (Currently amended) An apparatus for receiving digital images from a service provider, comprising:

a device for reception of information derived via one or more of the following: an RF signal, a phone line, a coaxial cable, an optical signal, a microwave signal, ~~and or~~ a satellite signal;

a digital decompressor system or circuit;

a memory and or flash memory circuit; ~~and~~

a programmable copy protection signal generator including generating a back porch pulse signal;

a digital to analog converter circuit; and

wherein the apparatus includes an electronic application program guide for display on a television set or monitor and wherein the output of the digital to analog converter circuit includes an analog image signal and back porch pulses ~~interface and or copy protection control software.~~

105. (Currently amended) The apparatus of claim 104 further including ~~wherein the~~ copy protection control software which enables or disables recording and viewing of the digital images.

106. (Previously presented) The apparatus of claim 105 wherein the device includes one or more of the following:

circuits for receiving digital audio signals and for decompressing the digital audio signals;

an MPEG decompressor; and

a circuit for providing at least part of a video copy protection process.

107. (Previously presented) The apparatus of claim 105 wherein the copy protection control software provides for programming or enabling/disabling at least a portion of a copy protection process.

108. (Currently amended) The apparatus of claim 104 wherein the digital images converted to an analog signal comprise a video signal having horizontal and vertical sync pulses ~~and or the device is capable of sending data to the service provider.~~

109. (Previously presented) The apparatus of claim 108 wherein the device provides a modification to an amplitude of the horizontal and or vertical sync pulses of the video signal.

110. (Currently amended) An apparatus for providing at least one ~~video~~ copy protection signal from a plurality of programmable ~~video~~ copy protection signals and sync pulses, ~~wherein the video copy protection signals may include copy protection for analog and or digital video signals, comprising:~~

a configuration circuit receiving one or more control bits for providing at least one back porch pulse in a portion of a video signal to produce a corresponding copy protected video signal, or for providing at least one back porch pulse and one or more of the following copy protection configuration bits indicative of the programmable video copy protection signals; [[,]] including a color stripe signal, a reduced horizontal sync signal, a reduced horizontal or vertical sync signal, an amplitude cycling of automatic gain control (AGC) pulses, static AGC pulses, ~~back porch pulses~~, vertical blanking interval pulses, ~~and or a reserved bit, to produce a corresponding copy protected video signal; and~~

a mode circuit for providing mode control bits for enabling inserting or adding one or more of the programmable ~~video~~ copy protection signal; [[s.]]

wherein the copy protected video signals are an analog video signal or a digital video signal converted to an analog video signal; and

wherein the copy protected video signal is viewable but not recordable.

111. (Currently amended) The apparatus of claim 110 wherein the configuration circuit ~~and or the mode circuit~~ includes a video encoder circuit.

112. (Previously presented) The apparatus of claim 110 including one or more of the following:

- an MPEG or digital decompression circuit;
- an RF modulation circuit;
- a software application device.

113. (Currently amended) The apparatus of claim 110 including a video encoder circuit which outputs one or more of the following signals; a component video signal, a composite video signal, ~~and an RF signal, and or includes an audio circuit for outputting an audio signal.~~

114. (Currently amended) The apparatus of claim 110 including one or more of [[,]] the following; a microprocessor device, a conditional access device, an electronic programming guide circuit, a digital to analog device, ~~and or~~ a computer device.

115. (Currently amended) The apparatus of claim 110 including one or more of the following; a wireless device, a fiber optic device, a microwave frequency device, ~~and or~~ a wired device.

116. (Currently amended) The apparatus of claim 110 including one or more of the following; ~~comprising~~ [[,]] a subscription device, a control circuit device, a receiver or demodulation device, ~~and or~~ a transmitting device.

117. (Currently amended) The apparatus of claim 110 wherein the output thereof is coupled to a display ~~and or~~ a recording device.

118. (Withdrawn) An apparatus for processing an analog video signal, comprising:
an input for supplying an analog video signal to an analog to digital converter and to an analog copy protection signal detector;
wherein the signal detector detects at least part of a copy protection signal; and

wherein the analog to digital converter converts the analog video signal to a digital video signal which may include an anti-copy bit;

wherein the digital video signal subsequently is supplied to a CPU and a memory having software programs, whereupon the CPU runs one or more of the software programs.

119. (Withdrawn) A method of processing an analog video signal, comprising:
supplying an analog video to an analog to digital converter;
supplying the analog video signal to an analog copy protection signal detector for detecting at least part of a copy protection signal; and
converting the analog video signal to a digital video signal via the analog to digital converter to provide a digital video signal which may include an anticopy bit;
wherein the digital video signal subsequently is supplied to a CPU and a memory having software programs, whereupon the CPU runs one or more of the software programs.

120. (Withdrawn) A wireless apparatus for processing images, video signals, or audio signals, wherein the apparatus may include an imbedded integrated circuit, the apparatus comprising:

circuitry for providing copy protection signals;
a digital signal decompressor system or circuit;
one or more software applications;
one or more memory system or circuit; and
a video encoder circuit;
wherein the circuits are imbedded in the apparatus or in the integrated circuit; and
wherein the copy protection circuitry may be activated or deactivated.

121. (Withdrawn) The wireless apparatus of claim 120 including an MPEG decoder circuit, electronic programming guide, conditional access system, and or microprocessor.

122. (Withdrawn) The wireless apparatus of claim 120 wherein the wireless device communicates in a uni-directional or bi-directional manner with a service provider, satellite company, microwave company, cable company, and or telephone company.

123. (Withdrawn) The wireless apparatus of claim 120 wherein selected program material is charged on a transaction basis to the customer.

124. (Withdrawn) The wireless apparatus of claim 120 wherein the copy protection circuitry may provide one or more of the following: a reserved bit, VBI pulses on/off, end of field back porch pulses on/off, color stripe process on/off, automatic gain control (AGC) pulses on/off, AGC amplitude cycling/static mode, H sync reduction on/off, and or V sync amplitude reduction on/off.